



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,003	11/26/2001	Zvi Rapaport	005127.00007	9069

22907 7590 07/03/2003

BANNER & WITCOFF
1001 G STREET N W
SUITE 1100
WASHINGTON, DC 20001

EXAMINER

MUSSER, BARBARA J

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,003

Applicant(s)

RAPAPORT, ZVI

Examiner

Barbara J. Musser

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation "the step of placing said at least one core" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is suggested this claim is intended to depend from claim 12.

Claim 15 recites the limitation "the step of placing said at least one core" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is suggested this claim is intended to depend from claim 12.

Claim 28 recites the limitation "the step of placing said at least one core" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is suggested this claim is intended to depend from claim 26.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rudy(U.S. Patent 5,083,361) in view of Lea et al.(U.S Patent 4,025,974), and Goodwin et al.(U.S. Patent 5,993,585).

Rudy et al. discloses forming a resilient fluid-filled bladder for use in a shoe by heating and bonding two sheets to the upper and lower surfaces of a core having two outer layers connected by connecting members. The sheets are then joined together to form a peripheral bond at the mid-point of the core.(Figure 2b; Col. 3, ll. 13-17; Col. 12, ll. 21-28; Col. 25, ll. 4-20) The reference does not disclose the specifics of the joining of the sheets, but simply states they are welded together.(Col. 12, ll. 21-24) Lea et al.(Figure 18) and Goodwin et al.(Figure 9A) disclose welding the peripheral edges of sheets surrounding a core in a mold. It would have been obvious to one of ordinary skill in the art at the time the invention was made to weld the peripheral edges together using a mold as this would insure proper positioning of the weld line.

Rudy et al. does not bond the sheets to the core at the same time as it forms the peripheral bond, but rather does it in two steps. Lea et al. discloses it is known in the bonding arts to join two sheets around a core by placing the sheets and core in a mold and welding the edges together while bonding the core to the sheets.(Col. 12, ll. 23-67; Col. 13, ll. 38-45) It would have been obvious to one of ordinary skill in the art at the time the invention was made to bond the core to the sheets at the same time the peripheral seam is formed as this is an obvious alternative to doing it separately while also reducing production time, since Lea et al. discloses it is known in the bonding arts

Art Unit: 1733

to bond the core the sheets at the same time the peripheral seam is formed, and particularly since Goodwin et al. discloses it is known to use molds to join two sheets to a resilient core while simultaneously forming a peripheral seam to form a bladder used in shoes(Abtract; Figure 8A)

The sheets are thermoplastic since Rudy et al. discloses the sheets can be made of the same material as the adhesive joining the core surfaces to the surfaces, and that is a thermoplastic.(Col. 10, ll. 5-6; Col. 26, ll. 34-36)

Regarding claim 2, Goodwin et al. discloses forming the bladder such that the weld coincides with the planar surface of one of the sheets.(Figure 8A) It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the bladder so that the weld coincides with the planar surface of one of the sheets since this locates the seam away from the area of maximum flexing of the sidewall, increasing durability.(Col. 4, ll. 61-64)

Regarding claims 4, 24, and 33, the mold is configured to form the sidewall.(Lea et al., Figure 19)

Regarding claims 5, 25, and 34, one in the art would appreciate that the bond would be re-configured as shown in Goodwin et al.(Figure 8A) when it is desired to form the bladder so that the weld coincides with the planar surface of one of the sheets since this mold structure allows such.

Regarding claims 6-8 and 18-20, Rudy et al. discloses injecting gas into the space formed by the two sheets and the weld via an injection needle through an

Art Unit: 1733

injection port.(Col. 12, ll. 59-63) The upper and lower surfaces of the core are held together by connecting members in a tensile configuration.(Col. 3, ll. 20-24)

Regarding claims 9, 21, and 31, one in the art would appreciate that the gas could be injected during bonding to press the sheets against the mold walls since applying pressure to form a sheet against a mold surface is well-known and conventional in the molding arts.

Regarding claims 10, 11, 22, 23, and 32, Goodwin et al. discloses it is known to use vacuum to pull a sheet against a mold surface so that it accurately conforms to the shape of the mold.(Col. 10, ll. 55-65) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use vacuum to pull the sheets against the mold surface so that they accurately conform to the shape of the mold.(Col. 10, ll. 55-65)

Regarding claims 13, 15, 17, and 27, Rudy et al. discloses applying a coupling material to the outer layers of the core to facilitate bonding.(Col. 24, ll. 53-65)

Regarding claims 14 and 28, while Rudy et al. heating the sheets at the same location that they are bonded to the core, one in the art would appreciate that the sheets could be pre-heated prior to placement in the mold to reduce the length of time in the mold particularly since it is well-known in the molding arts to preheat sheets prior to placement in the mold.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Barbara J. Musser** whose telephone number is (703)-

Art Unit: 1733

305-1352. The examiner can normally be reached on Monday-Thursday; alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



BJM

June 28, 2003



SAM CHUAN YAO
PRIMARY EXAMINER